

Amendments to the Claims:

Following is a complete listing of the claims pending in the application, as amended, which replaces all prior versions and listings of claims in the application:

1-57. (Canceled.)

58. (Previously Presented) A method in a portable computer for providing information about a context that is modeled with multiple context attributes, comprising:

receiving from each of multiple clients an indication of a desire to receive multiple values for at least one of the context attributes of the context, at least some of the indicated desires each lacking restrictions on which values of the at least one context attributes are of interest;

receiving from each of multiple sources an indication of an ability to supply values for one of the context attributes of the context; and

for each of the multiple sources,

receiving multiple values for the one context attribute for which the source has indicated the ability to supply values; and

after the receiving of each of the multiple values,

determining whether any of the multiple clients currently have a desire to receive values for the one context attribute for which the source has indicated the ability to supply values; and

when at least one of the multiple clients is determined to have the desire, sending the received value to each of the determined clients.

59. (Original) The method of claim 58 including, after sending of a received value for a first attribute to each of the clients determined to currently have the desire to receive values for the first attribute:

receiving from a first client an indication of a desire to receive values for the first attribute, the first client not one of the multiple clients; and

after the receiving of a next value for the first attribute, sending the received next value to the first client.

60. (Original) The method of claim 58 including, after sending of a received value for a first attribute to each of the clients determined to currently have the desire to receive values for the first attribute:

receiving from one of the determined clients an indication of a lack of desire to receive values for the first attribute; and

after the receiving of a next value for the first attribute, sending the received next value to a group of clients that does not include the one determined client.

61. (Original) The method of claim 58 wherein the context attributes represent information about a user of the portable computer.

62. (Original) The method of claim 58 wherein the context that is represented is a current context.

63. (Original) The method of claim 58 wherein the received indications from the multiple sources and multiple clients are registration messages.

64. (Original) The method of claim 58 including:
receiving from a first client an indication of a condition; and
when it is determined that the condition is satisfied, notifying the first client.

65. (Original) The method of claim 58 wherein receiving of the sent value by the client prompts the client to present information to a user of the client.

66-81. (Canceled)

82. (Previously Presented) The method of claim 64 further comprising, after receiving one or more attribute values, determining whether those received values satisfy the indicated condition.

83. (Previously Presented) The method of claim 64 wherein the condition relates to a specified one of the context attributes having a specified value.

84. (Previously Presented) The method of claim 64 further comprising monitoring the condition to determine when it is satisfied.

85. (Previously Presented) The method of claim 58 wherein, for one of the multiple sources, each receiving of a value for a context attribute from the one source includes receiving descriptive information about the received value, and wherein the determining of whether any of the multiple clients currently have a desire to receive values for the that context attribute includes, for at least one of the received values from the one source, using the received description information for the received value to determine whether any of the multiple clients currently have a desire to receive that received value.

86. (Previously Presented) The method of claim 85 wherein the descriptive information for a received value includes a time at which the received value is most accurate.

87. (Previously Presented) The method of claim 85 wherein the descriptive information for a received value includes a confidence factor indicating a likelihood of accuracy of the received value.

88. (Previously Presented) The method of claim 85 wherein the sending of a received value from the one source to a client includes supplying the descriptive information for that received value to the client.

89. (Previously Presented) The method of claim 58 further comprising storing values for attributes that are received from sources so that the stored values can be later sent to clients.

90. (Previously Presented) The method of claim 58 wherein at least one of the context attributes for which values are of interest to at least one client represents a modeled mental context of a user of the portable computer.

91. (Previously Presented) The method of claim 58 wherein at least one of the context attributes for which values are of interest to at least one client represents information about the portable computer.

92. (Previously Presented) The method of claim 58 wherein at least one of the context attributes for which values are of interest to at least one client represents information about a physical environment.

93. (Previously Presented) The method of claim 58 wherein at least one of the context attributes for which values are of interest to at least one client represents information about a cyber-environment of a user of the portable computer.

94. (Previously Presented) The method of claim 58 wherein at least one of the context attributes for which values are of interest to at least one client represents a current prediction about a future context.

95. (Previously Presented) The method of claim 58 wherein the received values for a context attribute from one of the multiple sources are sent by the one source in response to receiving by the one source of input information related to that context attribute.

96. (Previously Presented) The method of claim 58 wherein the sending of a received value to a client includes supplying an indication of the source that supplied the sent value.

97. (Previously Presented) The method of claim 58 wherein the received indication from one of the clients additionally includes an indication of a source, and wherein the sending

of a received value to the one client includes occurs only if the value is supplied by the indicated source.

98. (Previously Presented) The method of claim 58 wherein the sending of a received value to one of the clients includes occurs only if the received value satisfies a criteria for values sent to the one client.

99. (Previously Presented) The method of claim 58 further comprising:
receiving from a client a request for a current value of a specified context attribute; and
in response, supplying the requested value to the client by,
requesting at least one source to supply a value for the indicated context attribute;
and
sending to the client a value for the indicated context attribute received in response to the requesting.

100. (Previously Presented) The method of claim 58 wherein one of the sources includes a group of instructions to be executed to produce a value for one of the context attributes, and wherein the method further comprises loading and executing the group of instructions in response to receiving an indication from a client for a value of the one attribute, the loading and executing so that the one source can produce a value of the one attribute for the client.

101. (Previously Presented) The method of claim 58 wherein one of the clients includes a group of instructions to be executed to receive a value for one of the context attributes, and wherein the method further comprises loading and executing the group of instructions in response to receiving a value for the one attribute from a source.

102. (Previously Presented) The method of claim 58 wherein values of context attributes are accepted from one of the sources only if security information is received for the one source.

103. (Previously Presented) The method of claim 58 wherein values of context attributes are supplied to one of the clients only if security information is received for the one client.

104. (Previously Presented) The method of claim 58 wherein the context attributes are part of a predefined taxonomy of attributes.

105. (Previously Presented) The method of claim 58 wherein the context attributes are dynamically defined by sources who indicate an ability to supply values for the defined context attributes.

106. (Previously Presented) The method of claim 58 wherein the context attributes are dynamically defined by clients who indicate an interest in receiving values for the defined context attributes.

107. (Previously Presented) The method of claim 58 including supplying to one of the clients a mediated value for one of the attributes that is based on multiple received values for the one attribute from multiple sources.

108. (Previously Presented) The method of claim 58 wherein receipt of a sent value by one of the clients prompts the one client to present information to a user of the one client.

109. (Previously Presented) The method of claim 58 wherein the method is performed by an operating system of the portable computer.

110. (Previously Presented) The method of claim 58 wherein the method is performed by a software module, and wherein the method further comprises, upon commencement of execution of the software module, commencing execution of multiple sources that are each to supply values for at least one of the context attributes.

111. (Previously Presented) The method of claim 110 wherein the multiple sources that are to be executed are determined based on previous received indications of ability to supply values for at least one context attribute.

112. (Previously Presented) The method of claim 58 wherein the method is performed by a software module, and wherein the method further comprises, upon commencement of execution of the software module, commencing execution of multiple client that are each to receive values for at least one of the context attributes.

113. (Previously Presented) The method of claim 112 wherein the multiple clients that are to be executed are determined based on previous received indications of an indication of an interest in receiving values for at least one context attribute.

114. (Currently Amended) ~~The computer-readable medium of claim 50 wherein the method further comprises;~~ A computer-readable medium whose contents cause a computing device to provide information about a current state of a user of a first client computing system that is modeled with multiple state attributes, by performing a method comprising:

receiving from the first client computing system a registration message that indicates an interest in receiving all available values for an indicated one of the state attributes of the modeled current state of the user of the first client computing system;

receiving from a first source a registration message that indicates an ability to supply values for the indicated one attribute;

~~before the receiving of the a~~ value for the indicated one attribute from the first source,
determining based at least in part on the received registration message from the first source that the first source is currently available to supply the value for the indicated one attribute; and

requesting the first source to supply the value for the indicated one attribute; and
after the receiving of the registration message from the first client computing system, and in response to receiving a value for the indicated one attribute from the first source, such that the

receiving of the value for the indicated one attribute from the first source ~~is being initiated by the~~
requesting of the first source to supply the value for the indicated one attribute;

determining that the first client computing system has an interest in receiving the
received value based at least in part on the received registration message from the first client
computing system; and

supplying the received value to the first client computing system based at least in
part on the determining.

115. (New) The computer-readable medium of claim 114 wherein the computer-readable medium is a memory of the computing device.

116. (New) A computer-readable medium whose contents cause a portable computer to provide information about a context that is represented with multiple context attributes, by performing a method comprising:

receiving from each of multiple clients an indication of a desire to receive multiple values for at least one of the context attributes of the context, at least some of the indicated desires each lacking restrictions on which values of the at least one context attributes are of interest;

receiving from each of multiple sources an indication of an ability to supply values for one of the context attributes of the context; and

for each of the multiple sources,

receiving multiple values for the one context attribute for which the source has indicated the ability to supply values; and

after the receiving of each of the multiple values,

determining whether any of the multiple clients currently have a desire to receive values for the one context attribute for which the source has indicated the ability to supply values; and

when at least one of the multiple clients is determined to have the desire, sending the received value to each of the determined clients.

117. (New) The computer-readable medium of claim 116 wherein the method further comprises, after sending of a received value for a first attribute to each of the clients determined to currently have the desire to receive values for the first attribute:

receiving from a first client an indication of a desire to receive values for the first attribute, the first client not one of the multiple clients; and

after the receiving of a next value for the first attribute, sending the received next value to the first client.

118. (New) The computer-readable medium of claim 116 wherein the method further comprises, after sending of a received value for a first attribute to each of the clients determined to currently have the desire to receive values for the first attribute:

receiving from one of the determined clients an indication of a lack of desire to receive values for the first attribute; and

after the receiving of a next value for the first attribute, sending the received next value to a group of clients that does not include the one determined client.

119. (New) The computer-readable medium of claim 116 wherein the context attributes represent information about at least one of a user of the portable computer and of the portable computer.

120. (New) The computer-readable medium of claim 116 wherein the context that is represented is a current context.

121. (New) The computer-readable medium of claim 116 wherein the received indications from the multiple sources and multiple clients are registration messages.

122. (New) The computer-readable medium of claim 116 wherein the method further comprises:

receiving from a first client an indication of a condition; and

when it is determined that the condition is satisfied, notifying the first client.

123. (New) The computer-readable medium of claim 116 wherein the receiving of the sent value by the client prompts the client to present information to a user of the client.

124. (New) The computer-readable medium of claim 116 wherein, for one of the multiple sources, each receiving of a value for a context attribute from the one source includes receiving descriptive information about the received value, and wherein the determining of whether any of the multiple clients currently have a desire to receive values for the that context attribute includes, for at least one of the received values from the one source, using the received description information for the received value to determine whether any of the multiple clients currently have a desire to receive that received value.

125. (New) The computer-readable medium of claim 116 wherein the received values for a context attribute from one of the multiple sources are sent by the one source in response to receiving by the one source of input information related to that context attribute.

126. (New) The computer-readable medium of claim 116 wherein the sending of a received value to a client includes supplying an indication of the source that supplied the sent value.

127. (New) A portable computer for providing information about a context that is modeled with multiple context attributes, comprising:

a memory; and

an intermediary module configured to,

receive from each of multiple clients an indication of a desire to receive multiple values for at least one of the context attributes of the context, at least some of the indicated desires each lacking restrictions on which values of the at least one context attributes are of interest; and

receive from each of multiple sources an indication of an ability to supply values for one of the context attributes of the context; and

for each of one or more of the multiple sources,

receive multiple values for the one context attribute for which the source has indicated the ability to supply values; and

after the receiving of each of the multiple values,

determine whether any of the multiple clients currently have a desire to receive values for the one context attribute for which the source has indicated the ability to supply values; and

when at least one of the multiple clients is determined to have the desire, send the received value to each of the determined clients.

128. (New) The portable computer of claim 127 wherein the intermediary module is further configured to, after sending of a received value for a first attribute to each of the clients determined to currently have the desire to receive values for the first attribute:

receive from a first client an indication of a desire to receive values for the first attribute, the first client not one of the multiple clients; and

after the receiving of a next value for the first attribute, send the received next value to the first client.

129. (New) The portable computer of claim 127 wherein the intermediary module is further configured to, after sending of a received value for a first attribute to each of the clients determined to currently have the desire to receive values for the first attribute:

receive from one of the determined clients an indication of a lack of desire to receive values for the first attribute; and

after the receiving of a next value for the first attribute, send the received next value to a group of clients that does not include the one determined client.

130. (New) The portable computer of claim 127 wherein the context attributes represent information about at least one of a user of the portable computer and of the portable computer.

131. (New) The portable computer of claim 127 wherein the context that is modeled is a current context.

132. (New) The portable computer of claim 127 wherein the received indications from the multiple sources and multiple clients are registration messages.

133. (New) The portable computer of claim 127 wherein the intermediary module is further configured to:

receive from a first client an indication of a condition; and

when it is determined that the condition is satisfied, notify the first client.

134. (New) The portable computer of claim 127 wherein the receiving of the sent value by the client prompts the client to present information to a user of the client.

135. (New) The portable computer of claim 127 wherein, for one of the multiple sources, each receiving of a value for a context attribute from the one source includes receiving descriptive information about the received value, and wherein the determining of whether any of the multiple clients currently have a desire to receive values for the that context attribute includes, for at least one of the received values from the one source, using the received description information for the received value to determine whether any of the multiple clients currently have a desire to receive that received value.

136. (New) The portable computer of claim 127 wherein the received values for a context attribute from one of the multiple sources are sent by the one source in response to receiving by the one source of input information related to that context attribute.

137. (New) The portable computer of claim 127 wherein the sending of a received value to a client includes supplying an indication of the source that supplied the sent value.